



United States
Environmental Protection
Agency

July 2002
EPA530-F-02-038
www.epa.gov/osw

BETTER RULES FOR ZINC FERTILIZER RECYCLING

The Environmental Protection Agency (EPA) is improving regulatory controls on the practice of recycling zinc in hazardous waste to make micronutrient fertilizers. While ensuring that recycled zinc fertilizers are clean, high quality products, EPA is streamlining regulatory restrictions on this industry to encourage beneficial recycling of zinc resources. EPA believes this action strikes a good balance by strengthening environmental protections; increasing industry accountability; and providing incentives for safe, legitimate recycling. These regulations will conserve natural resources, prevent pollution, and save money.

Background

In response to recent public concerns regarding the use of hazardous waste to make agricultural fertilizers, EPA has taken a careful look at how hazardous waste is used by the fertilizer industry; the types of contaminants that may occur in fertilizer products; and the potential risks from exposure to contaminants found in a wide variety of fertilizers. At the same time, the Agency has been working to update and strengthen its existing regulations that apply to the use of zinc-bearing hazardous waste to make fertilizers.

EPA's studies concluded that fertilizers are generally safe. The Agency has not found evidence of widespread, illegal "sham" recycling of hazardous waste in the fertilizer industry. EPA has found that, by volume, fertilizers made from recycled hazardous waste account for less than one-half of one percent of the total fertilizer market in this country. Nearly all fertilizers made from hazardous waste ingredients are zinc micronutrient fertilizers, which farmers usually blend in small amounts with other fertilizers to grow crops such as corn, rice, potatoes, and fruit trees.

When done properly, recycling of zinc-bearing hazardous waste to make fertilizers is both safe and environmentally beneficial--conserving resources and preventing pollution. Modern technologies process and filter out contaminants from zinc-bearing waste materials, producing clean, high-quality zinc fertilizers. Wastes, such as pollution control dusts from brass foundries and brass fabricators, are most often used for this purpose. Demand for lower quality fertilizers made from steelmaking dusts, known by waste code K061, has been steadily declining.

Action

Specifically, this regulation:

- Sets stricter limits on contaminants in zinc fertilizers made from recycled hazardous wastes and secondary materials. The new limits on heavy metals (lead, cadmium, arsenic, mercury, and chromium) are based on the purity levels that can be achieved with modern production techniques. The rule also sets a limit on

dioxins of eight parts per trillion, which is the average “background” level of dioxins in soils in this country.

- ! Requires that zinc oxysulfate fertilizers made from K061, which were previously exempt from regulation, meet contaminant standards. This type of fertilizer will be phased out of production because it cannot meet the contaminant limits.
- ! Enhances accountability by industry and ensures safe management of recyclable materials, through a new system of testing, reporting, record keeping, and prescribed storage and handling practices. This system replaces the previous set of hazardous waste regulations, which often discouraged safe, legitimate recycling of zinc resources. The previous regulations also provided only limited information to regulators and the public as to how this recycling industry operates. EPA expects these streamlined regulations to lower costs for industry, and consequently, lower prices to farmers for zinc fertilizers.

For More Information

This fact sheet, the *Federal Register* notice, and other documents related to this action are generally available on the Internet when the rule is published. See: <<http://www.epa.gov/epaoswer/hazwaste/recycle/fertiliz/index.htm>>. For additional information, contact the RCRA Call Center. Callers within the Washington Metropolitan Area must dial 703-412-9810 or TDD 703-412-3323 (hearing impaired). Long-distance callers may call 1-800-424-9346 or TDD 1-800-553-7672.